THE RECENT ERUPTION OF MOUNT ETNA.

EVERY eruption of Mount Etna since 1883 has taken place on its southern slope. The eruption of 1883, which was preceded and accompanied by very severe earthquakes, caused a radial fracture running roughly from north to south, from the central crater to an altitude of 950 metres on the aforesaid slope; but that eruption was abortive, only lasting three days, and forming very small craters and insignificant flows of lava.

The eruption of 1886 took place on the same fracture of 1883, without any severe earthquakes. A large crater was formed, a great mass of lava was expelled, and the eruption lasted twenty days.

The eruption of 1892, on the same fracture of 1883, was preceded and accompanied by a few slight earthquakes; it formed four large craters and other small craters, emitted still more lava than the eruption of 1886, and lasted six months. Thus during these two eruptions it appeared that the lava found a passage prepared, whence its emission was easy.

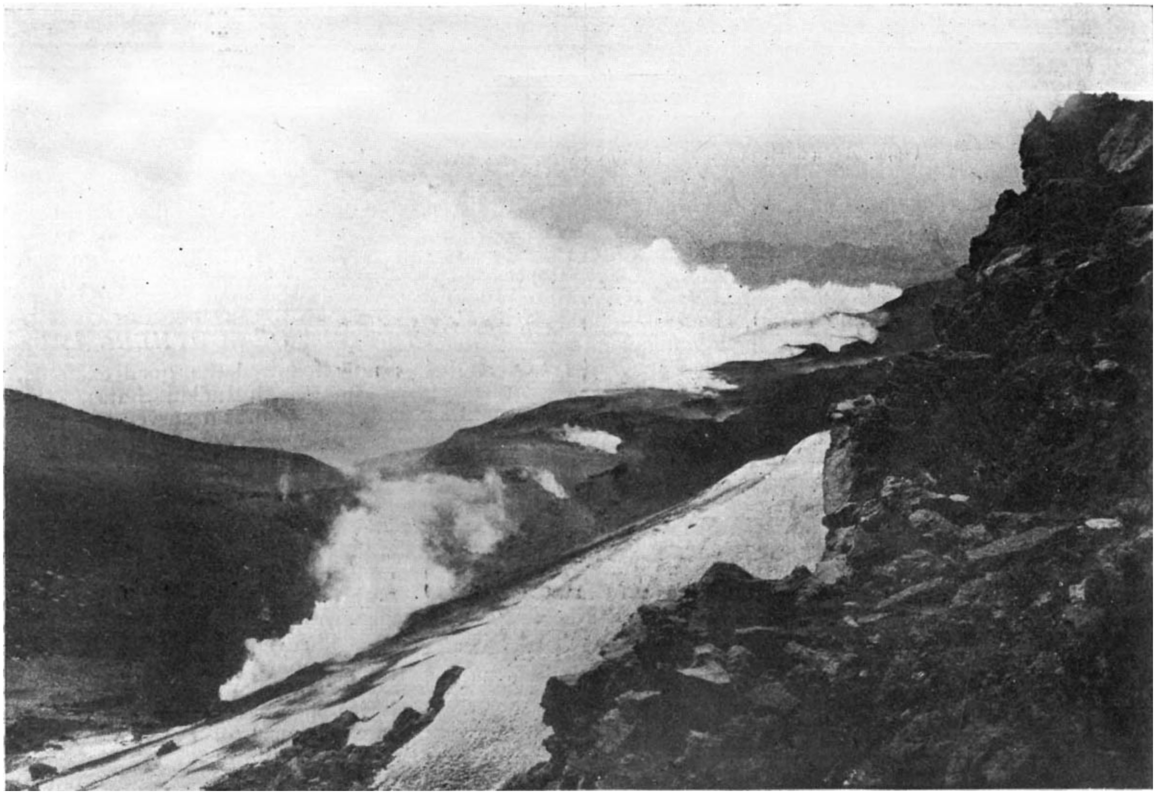

FIG. 1.—Eruption of Etna seen from the heights N.-N.E., April 4, 1910. Photograph by Assistant L. Taffara.

During the month of April, 1908, there was an eruption on the eastern slope of the Valle del Bove; it was accompanied by a few slight earthquakes, but no raised craters were formed, little lava was expelled, and the disturbance lasted less than twenty-four hours. Evidently this also was an abortive eruption, probably because (as it did not take place on the fracture of 1883) it found no free opening for the emission of the lava, and met instead the unyielding rocks of the higher parts of the Valle del Bove. If we consider only the eccentric eruptions, those which have taken place since 1883 (including the recent eruption, which, as will be seen, is on the same radial fracture as the others), we find the following figures approximately giving the altitudes of the middle of the eruptive areas:—

Eruption of 1883:	altitude	1050 m.		
,, 1886:	,,	1450 m.;	difference	400 m.
,, 1892:	,,	1850 m.;	,,	400 m.
,, 1910:	,,	2175 m.;	,,	325 m.

This suggests, therefore, that successive eruptions break out on the same fracture, but each higher than the last. This is easily explained by the fact that the lava of an eruption, tending to flow down, within and upon the fracture, closes it in the lower part, and leaves it more or less open in the higher, where, consequently, another eruption may be produced more easily.

We now come to the recent eruption. From the early hours of March 23 until 8h. 15m. a.m., the seismographs of the Observatory of Catania registered many slight shocks, which followed one another almost continually. Of those which in the large seismograph had an amplitude $(2a)$ greater than 1 mm., there were twelve, the severest of which $(2a = 13$ mm.) took place at 2h. 55m. a.m. But even this last shock was not felt by the inhabitants of the villages nearest the place of the eruption, so that it did not raise any alarm. These circumstances, together with the fact of its being night and everyone asleep, prevented anything abnormal being observed on the volcano until 8h. 15m. a.m. At this hour, rising above the mist and above the Piano del Lago, a thin column of steam was seen, widening at the top and taking the characteristic form of a pine (*Pinus italicus*). In fact, a large fracture had been formed, having a length of almost 2 kilometers, from Monte Castello to the western base of the Montagnola, in the direc-

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tion of N.N.W., between the height of 1950 metres and 2400 metres, and on the old fracture of 1883.

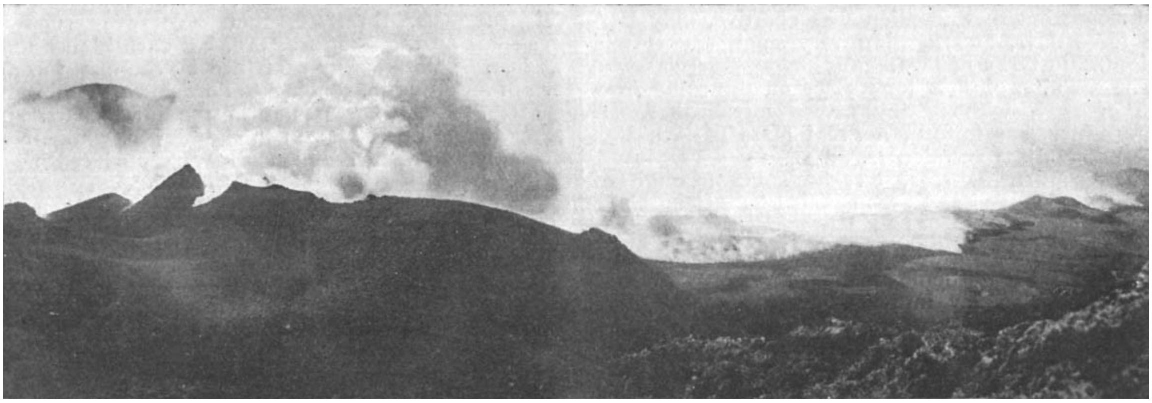

FIG. 2.—Lava flowing from lower craters on Etna. Photograph by Mr. W. Schlatter.

In the new fracture were a great number of craters, which emitted lava, bombs, incandescent lapilli, and clouds of steam and dust (Fig 1). At first the lava issued from the highest point, and formed a small stream going towards the south, which had the length of nearly two kilometres, but afterwards the principal emission was from the lower craters, from which a perfect river of molten rock, fifty metres wide, rapidly descended towards the south (Fig. 2). When it reached the east side of Monte Faggi, at a distance of two kilometres from these craters, having found a narrow passage between the above-mentioned mountain and the first lava of 1892, it formed a magnificent fiery cascade, ten metres wide and twenty metres in height (Fig. 3). Then it flowed on towards S.S.W., passing Mount Sona on the east, then towards the south, going through a gorge between Mount San Leo and Mount Rinazzi. Beyond the obstacle formed by this gorge, the rate of movement of the lava-stream diminished, owing in part to the fact that the slope of the ground is less, but the lava spread out considerably; in fact, from the lower craters to the cascade the lava-stream is no more than 100 metres wide, but from the cascade to the gorge above mentioned its width reaches half a kilometre; below the gorge the width even reaches one kilometre.

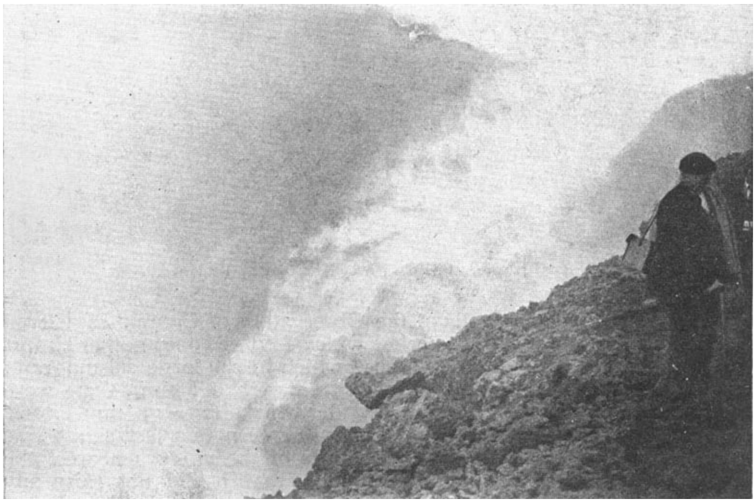

FIG. 3.—Eruption of Etna on March 29, 1910. Lava fall from S.E. Photograph by A. Riccò.

The depth of the lava varies from a few metres to a hundred metres in some places. The lava reached the lowest point near the Cisterna della Regina, ten kilometres from the new craters, on April 6.

The higher streams continued to flow and extend until April 20, when the flow of lava ceased, and the eruption was at an end. It had, therefore, lasted twenty-nine days.

A. RICCÒ.

THE ETHNOGRAPHY OF SOUTHERN INDIA.[1]

COCHIN has now followed the good example of the neighbouring South Indian States, Mysore and Travancore, in carrying out a survey of its population. The account of the survey, conducted by Mr. L. K. Anantha Krishna Iyer, will ultimately consist of three volumes. The first, devoted to an account of the forest and other low-caste tribes, has now appeared, to be followed by a second describing the higher castes, and a third dealing with physical anthropology. The work is, on the whole, a creditable performance, and it is illustrated by a good series of photographs. More precision in the matter of quotations and references is to be desired. With the last census report of the State the student will now possess ample information regarding the people.

The work is introduced by Dr. J. Beddoe, who discusses recent contributions to Indian ethnology. His note is followed by an essay from Dr. A. H. Keane, in which he propounds his views on the origin of the races of India. Criticising the conclusions of Sir H. Risley, he lays down four principles. First, that there is no fundamental unity in the people, "the superficial uniformity of physical characters being far less than is commonly supposed, and due not to a fanciful primordial unity, but to secular interminglings of several originally distinct ethnical groups superinducing surface resemblances." Secondly, that the assertions of

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[1] "The Cochin Tribes and Castes." Vol. i. By L. K. Anantha Krishna Iyer. Pp. xxx+366. (Madras; Higginbotham and Co.; London: Luzac and Co., 1909.)

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